



SEQUENCE LISTING

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<120> METHODS FOR IDENTIFYING G-PROTEIN
COUPLED RECEPTORS ASSOCIATED WITH DISEASES

<130> 433112000700

<140> US 10/032,106

<141> 2001-12-21

<150> US 60/258,070

<151> 2000-12-20

<160> 10

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 924

<212> DNA

<213> Homo sapiens

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atcggtcatga	tgggtgttaat	caagggtcagt	cctcagctta	acaaccccat	gtactttttc	180
ctcagtcact	tgtcatttgt	tgatgtgtgg	ttttcttcca	atgtcacccc	taaaatgttg	240
gaaaacctgt	tttcagataa	aaaaacaatt	acttatgctg	gttggttagt	acagtgtttc	300
ttcttcattg	ctcttgcca	tgtggaaatt	tttattcttg	ctgcgatggc	ctttgataga	360
tacatggcaa	ttgggaatcc	tctgctttat	ggcagtaaaa	tgtcaagggg	tgtctgtatt	420
cgactgatta	ctttccctta	catttatggg	ttcttgacga	gtctggcagc	aacattatgg	480
acttacggct	tgtacttctg	tggaaaaatt	gagatcaacc	atttctactg	tgcagatcca	540
cctctcatca	aaatggcctg	tgccgggacc	tttgtaaaag	aatatacaat	gatcatactt	600
gccggcatta	acttcacata	ttccctgact	gtaattatca	tctcttactt	attcatcctc	660
attgccattc	tgcgaatgcg	ctcagcagaa	ggaaggcaga	aggccttttc	cacatgtggg	720
tcccatctga	cagctgtcat	tatattctat	ggtactctga	tcttcatgta	tctcagacgt	780
cccacagagg	agtctgtgga	gcagggggaag	atgggtggctg	tgttctatac	cacagtgatc	840
cccatgttga	atcccatgat	ctacagtctg	aggaacaagg	atgtgaaaaa	ggccatgatg	900
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<210> 2

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<212> DNA

<213> Homo sapiens

<400> 2

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gggaacaaaa	ccatcattgt	attatctcac	ttggaccac	atcttcacac	tcctatgtat	180
tttttcttct	ccaacctaa	ctttttggat	ctgtgttaca	caaccggcat	tgttccacag	240
ctcctgggta	atctcagggg	agcagacaaa	tcaatctcct	atgggtgggtg	tgtagttcag	300

ctgtacatct	ctctaggcct	gggatctaca	gaatgcgttc	tcttaggagt	gatgggtattt	360
gaccgctatg	cagctgtttg	caggccctc	cactacacag	tagtcatgca	cccttgtctg	420
tatgtgctga	tggcttctac	ttcatgggtc	attggttttg	ccaactccct	attgcagacg	480
gtgctcatct	tgcttttaac	actttgtgga	agaaataaat	tagaacactt	tctttgtgag	540
gttctcccat	tgtcaagct	tgctgtgtt	gacactacta	tgaatgaatc	tgaactcttc	600
tttgtcagtg	tcattattct	tcttgtacct	gttgcattaa	tcatattctc	ctatagtcag	660
attgtcaggg	cagtcacag	gataaagtta	gcaacagggc	agagaaaagt	gtttgggaca	720
tgtggctccc	acctcacagt	ggtttccttg	ttctacggca	cagctatcta	tgcttacctc	780
cagcccgga	acaactactc	tcaggatcag	ggcaagttca	tctctctctt	ctacaccatc	840
attacaccca	tgatcaaccc	cctcatatat	acactgagga	acaaggatgt	gaaaggagca	900
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<220>

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<223> n= a, c, g, or t

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tactttctca	gcaatctgtc	actcatggat	ctctgctact	cctccgtcat	taccctaag	240
atgctgggtga	actttgtgtc	agagaaaaac	atcatctcct	acgcaggggtg	catgtcacag	300
ctctacttct	tccttgtttt	tgtcattgct	gagtgttaca	tgctgacagt	gatggcctac	360
gaccgctatg	ttgncntctg	ccaccctttg	ctttacaaca	tcattatgtc	tcacacacc	420
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tcggctggat	tcaacatcat	agtcacgagc	ttaacagttc	ttgtttctta	caccttcatt	660
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agctcccacc	ttgcagccgt	gggaatgttc	tatggatcaa	ctgcattcat	gtacttaaaa	780
ccctccacaa	tcagttcctt	gacccaggag	aatgtggcct	ctgtgttcta	caccacggta	840
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<210> 4

<211> 927

<212> DNA

<213> Homo sapiens

<400> 4

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gggaatggat	ttatgatctt	tcttattcac	tttgaccca	acctccacac	tccaatctac	180
ttcttctcta	gtaacctgtc	tttcttagac	ctttgttatg	gaacagcttc	catgccccag	240
gctttgggtgc	attgtttctc	tacctatccc	tacctctctt	atccccgatg	tttggtcaa	300
acgagtgtct	ccttggcttt	ggccacagca	gagtgccctc	tactggctgc	catggcctat	360
gaccgtgtgg	ttgctatcag	caatccccctg	cgttattcag	tggttatgaa	tggcccagta	420
tgtgtctgct	tggttgctac	ctcatggggg	acatcaactt	tgctcaactgc	catgtctatc	480
ctatccctga	ggcttcaact	ctgtggggct	aatgtcatca	accattttgc	ctgtgagatt	540
ctctccctca	ttaagctgac	ctgttctgat	accagcctca	atgaatttat	gacctctatc	600
accagtatct	tcaccctgct	gctaccattt	gggtttgttc	tcctctccta	catacgaatt	660

gctatggcta	tcataaggat	tcgctcactc	cagggcaggc	tcaaggcctt	taccacatgt	720
ggctctcacc	tgaccgtggt	gacaatcttc	tatgggtcag	ccatctccat	gtatatgaaa	780
actcagtcca	agtcctaccc	tgaccaggac	aagtttatct	cagtgtttta	tggagctttg	840
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ctgcttgga	actgcactct	ccttctcatc	atccaggctg	atgcagccct	ccatgaaccc	180
atgtacctct	ttctggccat	gttggcagcc	atcgacctgg	tcctttcctc	ctcagcactg	240
cccaaaatgc	ttgccatatt	ctgggttcagg	gatcgggaga	taaacttctt	tgctgtctg	300
gcccagatgt	tcttcttca	ctccttctcc	atcatggagt	cagcagtgtc	gctggccatg	360
gcctttgacc	gctatgtggc	tatctgcaag	ccactgcact	acaccaaggt	cctgactggg	420
tcctctatca	ccaagattgg	catggctgct	gtggcccggg	ctgtgacact	aatgactcca	480
ctcccccttc	tgctgagatg	ttccactac	tgccgaggcc	cagtgatcgc	tcactgtctac	540
tgtgaacaca	tggctgtggt	gaggctggcg	tgtggggaca	ctagcttcaa	caatatctat	600
ggcatcgctg	tggccatggt	tattgtggtg	ttggacctgc	tccttggtat	cctgtcttat	660
atctttattc	ttcaggcagt	tctactgctt	gcctctcagg	aggcccgcct	caaggcattt	720
gggacatgtg	tctctcatat	aggtgccatc	ttagccttct	acacaactgt	ggtcatctct	780
tcagtcatgc	accgtgtagc	ccgccatgct	gccccctcatg	tccacatcct	ccttgccaat	840
ttctatctgc	tcttcccacc	catggtcaat	cccataatct	atggtgtcaa	gaccaagcaa	900
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<210> 6
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 <213> Homo sapiens

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Ser	Arg	Arg	Glu	Trp	Gln	Val	Leu	Phe	Phe	Ile	Ile	Phe	Leu	Val	Val
			20					25					30		
Tyr	Ile	Ile	Thr	Met	Val	Gly	Asn	Ile	Gly	Met	Met	Val	Leu	Ile	Lys
		35					40					45			
Val	Ser	Pro	Gln	Leu	Asn	Asn	Pro	Met	Tyr	Phe	Phe	Leu	Ser	His	Leu
	50					55					60				
Ser	Phe	Val	Asp	Val	Trp	Phe	Ser	Ser	Asn	Val	Thr	Pro	Lys	Met	Leu
65					70				75					80	
Glu	Asn	Leu	Phe	Ser	Asp	Lys	Lys	Thr	Ile	Thr	Tyr	Ala	Gly	Cys	Leu
			85					90					95		
Val	Gln	Cys	Phe	Phe	Phe	Ile	Ala	Leu	Val	His	Val	Glu	Ile	Phe	Ile
			100					105					110		
Leu	Ala	Ala	Met	Ala	Phe	Asp	Arg	Tyr	Met	Ala	Ile	Gly	Asn	Pro	Leu
	115					120					125				
Leu	Tyr	Gly	Ser	Lys	Met	Ser	Arg	Val	Val	Cys	Ile	Arg	Leu	Ile	Thr
	130				135					140					
Phe	Pro	Tyr	Ile	Tyr	Gly	Phe	Leu	Thr	Ser	Leu	Ala	Ala	Thr	Leu	Trp
145					150					155				160	
Thr	Tyr	Gly	Leu	Tyr	Phe	Cys	Gly	Lys	Ile	Glu	Ile	Asn	His	Phe	Tyr
			165					170						175	

Cys Ala Asp Pro Pro Leu Ile Lys Met Ala Cys Ala Gly Thr Phe Val
 180 185 190
 Lys Glu Tyr Thr Met Ile Ile Leu Ala Gly Ile Asn Phe Thr Tyr Ser
 195 200 205
 Leu Thr Val Ile Ile Ile Ser Tyr Leu Phe Ile Leu Ile Ala Ile Leu
 210 215 220
 Arg Met Arg Ser Ala Glu Gly Arg Gln Lys Ala Phe Ser Thr Cys Gly
 225 230 235 240
 Ser His Leu Thr Ala Val Ile Ile Phe Tyr Gly Thr Leu Ile Phe Met
 245 250 255
 Tyr Leu Arg Arg Pro Thr Glu Glu Ser Val Glu Gln Gly Lys Met Val
 260 265 270
 Ala Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Met Ile Tyr
 275 280 285
 Ser Leu Arg Asn Lys Asp Val Lys Lys Ala Met Met Lys Val Ile Ser
 290 295 300
 Arg Ser Cys
 305

<210> 7
 <211> 312
 <212> PRT
 <213> Homo sapiens

<400> 7
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 Phe Ser Asp Arg Pro Gln Leu Glu Leu Val Leu Phe Val Val Leu Leu
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 Ile Phe Tyr Ile Phe Thr Leu Leu Gly Asn Lys Thr Ile Ile Val Leu
 35 40 45
 Ser His Leu Asp Pro His Leu His Thr Pro Met Tyr Phe Phe Phe Ser
 50 55 60
 Asn Leu Ser Phe Leu Asp Leu Cys Tyr Thr Thr Gly Ile Val Pro Gln
 65 70 75 80
 Leu Leu Val Asn Leu Arg Gly Ala Asp Lys Ser Ile Ser Tyr Gly Gly
 85 90 95
 Cys Val Val Gln Leu Tyr Ile Ser Leu Gly Leu Gly Ser Thr Glu Cys
 100 105 110
 Val Leu Leu Gly Val Met Val Phe Asp Arg Tyr Ala Ala Val Cys Arg
 115 120 125
 Pro Leu His Tyr Thr Val Val Met His Pro Cys Leu Tyr Val Leu Met
 130 135 140
 Ala Ser Thr Ser Trp Val Ile Gly Phe Ala Asn Ser Leu Leu Gln Thr
 145 150 155 160
 Val Leu Ile Leu Leu Leu Thr Leu Cys Gly Arg Asn Lys Leu Glu His
 165 170 175
 Phe Leu Cys Glu Val Pro Pro Leu Leu Lys Leu Ala Cys Val Asp Thr
 180 185 190
 Thr Met Asn Glu Ser Glu Leu Phe Phe Val Ser Val Ile Ile Leu Leu
 195 200 205
 Val Pro Val Ala Leu Ile Ile Phe Ser Tyr Ser Gln Ile Val Arg Ala
 210 215 220
 Val Met Arg Ile Lys Leu Ala Thr Gly Gln Arg Lys Val Phe Gly Thr
 225 230 235 240
 Cys Gly Ser His Leu Thr Val Val Ser Leu Phe Tyr Gly Thr Ala Ile
 245 250 255

Tyr Ala Tyr Leu Gln Pro Gly Asn Asn Tyr Ser Gln Asp Gln Gly Lys
 260 265 270
 Phe Ile Ser Leu Phe Tyr Thr Ile Ile Thr Pro Met Ile Asn Pro Leu
 275 280 285
 Ile Tyr Thr Leu Arg Asn Lys Asp Val Lys Gly Ala Leu Lys Lys Val
 290 295 300
 Leu Trp Lys Asn Tyr Asp Ser Arg
 305 310

<210> 8
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 <212> PRT
 <213> Homo sapiens

<220>
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 <223> Xaa= any amino acid

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 Gly Ile Tyr Leu Val Thr Ile Val Gly Asn Leu Gly Met Ile Thr Leu
 35 40 45
 Ile Cys Leu Asn Ser Gln Leu His Thr Pro Met Tyr Tyr Phe Leu Ser
 50 55 60
 Asn Leu Ser Leu Met Asp Leu Cys Tyr Ser Ser Val Ile Thr Pro Lys
 65 70 75 80
 Met Leu Val Asn Phe Val Ser Glu Lys Asn Ile Ile Ser Tyr Ala Gly
 85 90 95
 Cys Met Ser Gln Leu Tyr Phe Phe Leu Val Phe Val Ile Ala Glu Cys
 100 105 110
 Tyr Met Leu Thr Val Met Ala Tyr Asp Arg Tyr Val Xaa Xaa Cys His
 115 120 125
 Pro Leu Leu Tyr Asn Ile Ile Met Ser His His Thr Cys Leu Leu Leu
 130 135 140
 Val Ala Val Val Tyr Ala Ile Gly Leu Ile Gly Ser Thr Ile Glu Thr
 145 150 155 160
 Gly Leu Met Leu Lys Leu Pro Tyr Cys Glu His Leu Ile Ser His Tyr
 165 170 175
 Phe Cys Asp Ile Leu Pro Leu Met Lys Leu Ser Cys Ser Ser Thr Tyr
 180 185 190
 Asp Val Glu Met Thr Val Phe Phe Ser Ala Gly Phe Asn Ile Ile Val
 195 200 205
 Thr Ser Leu Thr Val Leu Val Ser Tyr Thr Phe Ile Leu Ser Ser Ile
 210 215 220
 Leu Gly Ile Ser Thr Thr Glu Gly Arg Ser Lys Ala Phe Ser Thr Cys
 225 230 235 240
 Ser Ser His Leu Ala Ala Val Gly Met Phe Tyr Gly Ser Thr Ala Phe
 245 250 255
 Met Tyr Leu Lys Pro Ser Thr Ile Ser Ser Leu Thr Gln Glu Asn Val
 260 265 270
 Ala Ser Val Phe Tyr Thr Thr Val Ile Pro Met Leu Asn Pro Leu Ile
 275 280 285
 Tyr Ser Leu Arg Asn Lys Glu Val Lys Ala Ala Val Gln Lys Thr Leu

290
Arg Gly Lys Leu Phe
305

295

300

<210> 9
<211> 308
<212> PRT
<213> Homo sapiens

<400> 9

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		20						25					30		
Ile	Ile	Tyr	Leu	Ser	Thr	Leu	Leu	Gly	Asn	Gly	Phe	Met	Ile	Phe	Leu
		35					40					45			
Ile	His	Phe	Asp	Pro	Asn	Leu	His	Thr	Pro	Ile	Tyr	Phe	Phe	Leu	Ser
	50					55					60				
Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Gly	Thr	Ala	Ser	Met	Pro	Gln
65					70				75					80	
Ala	Leu	Val	His	Cys	Phe	Ser	Thr	His	Pro	Tyr	Leu	Ser	Tyr	Pro	Arg
				85					90					95	
Cys	Leu	Ala	Gln	Thr	Ser	Val	Ser	Leu	Ala	Leu	Ala	Thr	Ala	Glu	Cys
			100					105					110		
Leu	Leu	Leu	Ala	Ala	Met	Ala	Tyr	Asp	Arg	Val	Val	Ala	Ile	Ser	Asn
		115					120					125			
Pro	Leu	Arg	Tyr	Ser	Val	Val	Met	Asn	Gly	Pro	Val	Cys	Val	Cys	Leu
	130					135					140				
Val	Ala	Thr	Ser	Trp	Gly	Thr	Ser	Leu	Val	Leu	Thr	Ala	Met	Leu	Ile
145					150				155					160	
Leu	Ser	Leu	Arg	Leu	His	Phe	Cys	Gly	Ala	Asn	Val	Ile	Asn	His	Phe
				165					170					175	
Ala	Cys	Glu	Ile	Leu	Ser	Leu	Ile	Lys	Leu	Thr	Cys	Ser	Asp	Thr	Ser
		180						185					190		
Leu	Asn	Glu	Phe	Met	Ile	Leu	Ile	Thr	Ser	Ile	Phe	Thr	Leu	Leu	Leu
	195						200					205			
Pro	Phe	Gly	Phe	Val	Leu	Leu	Ser	Tyr	Ile	Arg	Ile	Ala	Met	Ala	Ile
	210					215					220				
Ile	Arg	Ile	Arg	Ser	Leu	Gln	Gly	Arg	Leu	Lys	Ala	Phe	Thr	Thr	Cys
225					230					235				240	
Gly	Ser	His	Leu	Thr	Val	Val	Thr	Ile	Phe	Tyr	Gly	Ser	Ala	Ile	Ser
				245					250					255	
Met	Tyr	Met	Lys	Thr	Gln	Ser	Lys	Ser	Tyr	Pro	Asp	Gln	Asp	Lys	Phe
			260					265					270		
Ile	Ser	Val	Phe	Tyr	Gly	Ala	Leu	Thr	Pro	Met	Leu	Asn	Pro	Leu	Ile
		275					280					285			
Tyr	Ser	Leu	Arg	Lys	Lys	Asp	Val	Lys	Arg	Ala	Ile	Arg	Lys	Val	Met
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Leu	Lys	Arg	Thr												
305															

<210> 10
<211> 314
<212> PRT
<213> Homo sapiens

<400> 10

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			20					25					30		
Phe	Cys	Leu	Ala	Tyr	Thr	Leu	Ala	Leu	Leu	Gly	Asn	Cys	Thr	Leu	Leu
	35						40					45			
Leu	Ile	Ile	Gln	Ala	Asp	Ala	Ala	Leu	His	Glu	Pro	Met	Tyr	Leu	Phe
	50					55					60				
Leu	Ala	Met	Leu	Ala	Ala	Ile	Asp	Leu	Val	Leu	Ser	Ser	Ser	Ala	Leu
65				70					75					80	
Pro	Lys	Met	Leu	Ala	Ile	Phe	Trp	Phe	Arg	Asp	Arg	Glu	Ile	Asn	Phe
			85					90						95	
Phe	Ala	Cys	Leu	Ala	Gln	Met	Phe	Phe	Leu	His	Ser	Phe	Ser	Ile	Met
			100					105					110		
Glu	Ser	Ala	Val	Leu	Leu	Ala	Met	Ala	Phe	Asp	Arg	Tyr	Val	Ala	Ile
	115						120					125			
Cys	Lys	Pro	Leu	His	Tyr	Thr	Lys	Val	Leu	Thr	Gly	Ser	Leu	Ile	Thr
	130					135					140				
Lys	Ile	Gly	Met	Ala	Ala	Val	Ala	Arg	Ala	Val	Thr	Leu	Met	Thr	Pro
145				150					155					160	
Leu	Pro	Phe	Leu	Leu	Arg	Cys	Phe	His	Tyr	Cys	Arg	Gly	Pro	Val	Ile
			165					170					175		
Ala	His	Cys	Tyr	Cys	Glu	His	Met	Ala	Val	Val	Arg	Leu	Ala	Cys	Gly
		180					185					190			
Asp	Thr	Ser	Phe	Asn	Asn	Ile	Tyr	Gly	Ile	Ala	Val	Ala	Met	Phe	Ile
	195					200					205				
Val	Val	Leu	Asp	Leu	Leu	Leu	Val	Ile	Leu	Ser	Tyr	Ile	Phe	Ile	Leu
	210					215					220				
Gln	Ala	Val	Leu	Leu	Leu	Ala	Ser	Gln	Glu	Ala	Arg	Tyr	Lys	Ala	Phe
225				230					235					240	
Gly	Thr	Cys	Val	Ser	His	Ile	Gly	Ala	Ile	Leu	Ala	Phe	Tyr	Thr	Thr
			245					250					255		
Val	Val	Ile	Ser	Ser	Val	Met	His	Arg	Val	Ala	Arg	His	Ala	Ala	Pro
		260					265					270			
His	Val	His	Ile	Leu	Leu	Ala	Asn	Phe	Tyr	Leu	Leu	Phe	Pro	Pro	Met
	275					280						285			
Val	Asn	Pro	Ile	Ile	Tyr	Gly	Val	Lys	Thr	Lys	Gln	Ile	Arg	Glu	Ser
	290					295				300					
Ile	Leu	Gly	Val	Phe	Pro	Arg	Lys	Asp	Met						
305				310											